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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,530	08/01/2003	Philip Mattos	851963.410	2656

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EXAMINER	
WANG, TED M	

ART UNIT	PAPER NUMBER
2611	

MAIL DATE	DELIVERY MODE
06/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/632,530	MATTOS ET AL.	
	Examiner	Art Unit	
	Ted M. Wang	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 April 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,6,8-14,16,17,19 and 20* is/are rejected.

7)☒ Claim(s) *4,7,15 and 18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 April 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *04/09/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The Affidavit filed on 04/09/2007 under 37 CFR 1.131 has been considered but is ineffective to overcome the Best (US 7,061,972) reference.

2. The evidence submitted is insufficient to establish a conception of the invention or a reduction to practice of the invention in this country or a NAFTA or WTO member country prior to the effective date of the Best (US 7,061,972) reference. While conception is the mental part of the inventive act, it must be capable of proof, such as by demonstrative evidence or by a complete disclosure to another. Conception is more than a vague idea of how to solve a problem. The requisite means themselves and their interaction must also be comprehended. See Mergenthaler v. Scudder, 1897 C.D. 724, 81 O.G. 1417 (D.C. Cir. 1897). Simply states " We were in possession of the invention defined by the claims of the application identified above ("the present application") prior to April 4, 2002." is insufficient to overcome the Best (US 7,061,972) reference.

The affidavit or declaration must state FACTS and produce such documentary evidence and exhibits in support thereof as are available to show conception and completion of invention in this country or in a NAFTA or WTO member country (MPEP § 715.07(c)), at least the conception being at a date prior to the effective date of the reference. Where there has not been reduction to practice prior to the date of the reference, the applicant or patent owner must also show diligence in the completion of his or her invention from a time just prior to the date of the reference continuously up to

the date of an actual reduction to practice or up to the date of filing his or her application (filing constitutes a constructive reduction to practice, 37 CFR 1.131).

Response to Arguments

3. Applicant's arguments, filed on 04/09/2007, have been fully considered but they are not persuasive. The Examiner has thoroughly reviewed Applicants' arguments but firmly believes that the cited reference to reasonably and properly meet the claimed limitations. Examiner's response has been addressed in the above paragraph with respect to Response to Amendments.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-3, 5, 6, 8-14, 16, 17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Best (US 7,061,972) in view of Kohli (US 6,574,558).

- With regard claim 1, Best discloses a GPS receiver for processing a plurality of received broadcast signals, the broadcast signals being of a type each having a different respective known digital code, the GPS receiver comprising:

  a digital sampler (column 3 lines 41-44);

  a memory arrangement (Fig.2 element 44 and column 4 line 34); and

a plurality of correlators (Fig.2 elements 50, 60A and 60B and column 6 lines 7-8), being arranged to be operable in two modes wherein:

in an acquisition mode (column 6 lines 7-8):

the digital sampler samples the received broadcast signals to produce a digital bit stream at a first bit rate (column 2 lines 48-51, column 5 lines 9-27 and column 5 lines 38-42, where the first bit rate is the real time rate, 2.5MHz);

the memory arrangement receives the digital bit stream and outputs at a second bit rate (column 2 lines 48-51), being higher than the first bit rate (column 5 lines 28-32 and column 5 lines 38-42, where the second bit rate is the supersamples processing rate, 25MHz);

the plurality of correlators (Fig.2 elements 50, 60A and 60B and column 6 lines 7-8) receive the digital bit stream at the second bit rate (column 5 lines 28-32 and column 5 lines 38-42), and each of the plurality of correlators correlates the digital bit stream with a same locally generated version of one of the different known digital codes (Fig.2 elements 46, 64A and 64B, column 5 lines 61- 67 and column 6 lines 1-22); and

in a tracking mode (column 7 lines 1-5):

the digital sampler samples the received broadcast signals to produce a digital bit stream at the first bit rate (column 2 lines 48-51, column 5 lines 9-27 and column 5 lines 38-42, where the first bit rate is the real time rate, 2.5MHz) and provides that digital bit stream direct to each of the plurality of correlators (Fig.2 elements 50, 60A and 60B and column 7 lines 1-12 and 43-47), each

correlator correlates that digital bit stream with a different locally generated version of one of the known digital codes (Fig.2 elements 46, 64A and 64B and column 7 lines 5-15 and column 7 lines 43-57).

Best discloses all of the subject matter as described in the above paragraph except for specifically teaching the tracking and acquisition process circuit can be implemented with a semiconductor integrated circuit.

However, Kohli teaches that the tracking and acquisition process circuit can be implemented with a semiconductor integrated circuit (Fig.5 and column 15 lines 55-65) in order to provide fast reacquisition capabilities and reduce the number of gates required on the ASIC to reduce the cost.

Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the acquisition and tracking processes circuit of the Best's in an integrated circuit as taught by Kohli so as to provide fast reacquisition capabilities and reduce the number of gates required on the ASIC to reduce the cost.

- With regard to claim 2, Best discloses all of the subject matter as described in the above paragraph except for specifically teaching wherein the memory arrangement comprises a circulating shift register.

However, Kohli teaches wherein the memory arrangement comprises a circulating shift register (Fig.5 element 122 and column 17 lines 26-43, where shift register element 122 has the exact same structure as that of a circulating

shift register as defined in Fig.3 element 51 of the instant application.) in order to provide the parallel input samples to 12 channel blocks 108 for Doppler correction (column 17 lines 36-43) so that the communication quality can be improved.

Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the circulating shift register as taught by Kohli into Best's memory arrangement so as to improve the communication quality.

- With regard claim 3, Best discloses all of the subject matter as described in the above paragraph except for specifically teaching wherein the circulating shift register receives the digital bit stream at a rate equal to the first bit rate and circulates at the second bit rate.

However, Kohli teaches wherein the circulating shift register receives the digital bit stream at a rate equal to the first bit rate (Fig.5 element 119 input, $2f_0$ serial shift and column 17 lines 25-43) and circulates at the second bit rate (Fig.5 element 122 output, $24f_0$ parallel load and column 17 lines 25-43) in order to provide the parallel input samples to 12 channel blocks 108 for Doppler correction (column 17 lines 36-43) so that the communication quality can be improved.

Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the circulating shift register wherein the circulating shift register receives the digital bit stream at a rate equal

to the first bit rate and circulates at the second bit rate as taught by Kohli into Best's memory arrangement so as to improve the communication quality.

- With regard claim 5, which is a method claim related to claim 1, all limitation is contained in claim 1. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 6, which is a method claim related to claim 3, all limitation is contained in claim 3. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claims 8 and 12, which is an apparatus claim related to claim 1, all limitation is contained in claim 1. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 9, Best further discloses wherein the correlator unit comprises a plurality of correlators (Fig.2 elements 50 and 60A, 60B and column 6 lines 7-10), each to correlate the received digital bit stream with a same one of the digital codes (column 6 lines 7-15).
- With regard claim 10, Best further discloses wherein the one of the digital codes used in the correlation in the acquisition mode (column 4 line 66) comprises a locally generated version of the digital code (Fig.2 elements 46 and 64A and 64B and column 6 lines 7-15 and 37-57).
- With regard claim 11, Best further discloses wherein the one of the digital codes used in the correlation in the track mode (column 7 line 1) comprises a locally generated version of the digital code (column 7 lines 5-31 and 37-57).

- With regard claim 13, which is an apparatus claim related to claim 2, all limitation is contained in claim 2. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 14, which is an apparatus claim related to claim 3, all limitation is contained in claim 3. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 16, which is a system claim related to claim 1, all limitation is contained in claim 1. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 17, which is a system claim related to claim 3, all limitation is contained in claim 3. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 19, Best further discloses wherein the means for correlating the bit streams at the first (column 5 lines 9-27 and lines 38-42, where the first bit rate is 2.5 MHz) and second bit rates (column 5 lines 28-32 and lines 38-42, where the second bit rate is 25 MHz) comprises a plurality of correlators (Fig.2 elements 50 and 60A, 60B and column 6 lines 7-10 and column 7 lines 32-57) means for respectively correlating the bit streams with locally generated version of the digital codes (Fig.2 elements 46 and 64A and 64B and column 6 lines 37-46 and column 7 lines 32-57).

- With regard claim 20, which is a system claim related to claim 1, all limitation is contained in claim 1. The explanation of all the limitation is already addressed in the above paragraph.

Allowable Subject Matter

6. Claims 4, 7, 15 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten to overcome the objection(s) set forth in this Office action and rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

8. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

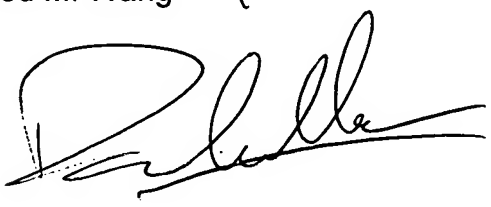
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted M. Wang whose telephone number is 571-272-3053. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ted M Wang
Examiner
Art Unit 2611

Ted M. Wang TW



DAC HA
PRIMARY EXAMINER